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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/155,231	09/23/1998	SEPPO HAMALAINEN	11902.9USWO	8336

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EXAMINER

DUONG, DUC T

ART UNIT	PAPER NUMBER
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2663

27

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/155,231

Applicant(s)

HAMALAINEN ET AL.

Examiner

Duc T. Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,8 and 11 is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 21 March 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 16.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claim 12 is rejected under 35 U.S.C. 102(b) as being anticipated by Wheatley, III et al (U.S. Patent 5,383,219).

Regarding to claim 12, Wheatley discloses a personal station operating in a digital radio link in a system where a base station and a personal station are parties to the radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, wherein the base station is further arranged to inform the personal station of a new transmission rate when the transmission rate of the base station changes (Fig. 5 col. 7 lines 30-35), the personal station changing in response to the new transmission rate, without estimating a power of a signal from the first party, changes the power control command

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to be sent to the base station to be in accordance with the new transmission rate (Fig. 5 col. 8 lines 7-9), and change the reception of its own power control command to be in accordance with the new transmission rate (Fig. 5 col. 8 lines 9-20).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behtash et al (U.S. Patent 5,745,480) in view of Gilshousen et al (U.S. Patent 5,603,096).

Regarding to claim 1, Behtash discloses a method of controlling the transmission power used in a digital radio link in a system where a base station and a personal station are parties to the radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, the method comprising when a transmission rate of the first party changes, the first party informs the second party of the new transmission rate (Fig. 4 col. 4 lines 28-30), and in response to the new transmission rate the second party, without estimating a power of a signal from the first party, granted the new transmission data rate according to the power budget available (Fig. 4 col. 5 lines 1-11), the first party changes the reception of its own power control command to be in accordance with the new transmission rate (Fig. 6 col. 9 lines 48-64).

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Behtash fails to explicitly teach for changes the power control command to be sent to the first party to be in accordance with the new transmission rate.

However, Gilhousen a closed loop power control system, wherein the power control command sent from the base station to the mobile is depends on the transmission rate (Fig. 3. col. 5 lines 17-30).

Thus, it would have been obvious to one of ordinary skilled in the art, at the time of the invention, to include sending power control command that's depends on a transmission rate as taught by Gilhousen in Behtash's system to provides a fast and accurate closed loop power control.

Regarding to claim 2, Behtash discloses the first party will change the power control command to be sent to the second party (col. 4 lines 14-25); and the second party will change the reception of its own power control command (col. 5 lines 33-42).

Regarding to claim 13, Behtash discloses a personal station operating in a digital radio link in a system where a base station and a personal station are parties to the radio connection and during operation between them either party may send a power control command, which will change the transmission power of the other party, wherein the personal station is further arranged to inform the base station of a new transmission rate when the transmission rate of the personal station changes (Fig. 4 col. 4 lines 28-30), the base station changing in response to the new transmission rate, without estimating a power of a signal from the first party, granted the new transmission data rate according to the power budget available (Fig. 4 col. 5 lines 1-11), and change the

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reception of its own power control command to be in accordance with the new transmission rate (Fig. 6 col. 9 lines 48-64).

Behtash fails to explicitly teach for changes the power control command to be sent to the first party to be in accordance with the new transmission rate.

However, Gilhousen a closed loop power control system, wherein the power control command sent from the base station to the mobile is depends on the transmission rate (Fig. 3. col. 5 lines 17-30).

Thus, it would have been obvious to one of ordinary skilled in the art, at the time of the invention, to include sending power control command that's depends on a transmission rate as taught by Gilhousen in Behtash's system to provides a fast and accurate closed loop power control.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Behtash and Gilhousen in view of Padovani et al (U.S. Patent 5,396,516).

Regarding to claim 5, Behtash and Gilhousen disclose all the limitation with respect to claim 1, except for when the transmission rate of the first party is decreased, the second party will lower the energy of power control commands to be sent to the first party and, correspondingly, when the transmission rate of the first party is increased, the second party will increase the energy of power control commands.

However, Padovani discloses a communication system with a power command generator (energy) for power up or down a data transmission based on a rate indication (col. 7 lines 3-17).

Thus, it would have been obvious to one of ordinary skilled in the art, at the time of the invention, to include the power command generator as taught be Padovani in Behtash and Gilhousen's system with the motivation to maintain a balance between interference and signal quality of the mobile and base station.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behtash and Gilhousen in view of Li (U.S. Patent 5,537,410).

Regarding to claims 6 and 7, Behtash and Gilhousen disclose all the limitation with respect to claim 1, except for the change in transmission rate of the first party is declared in a field of a transmission frame reserved for this purpose (claim 6); the change in transmission rate of the first party is declared by changing a structure of a transmission frame directly to correspond with the new transfer rate (claim 7).

However, Li discloses a variable data rate communication system with a field in transmission frame indicating change of transmission rate (Fig. 4 col. 7 lines 1-9); and an alternate frame structures corresponding different data rates (col. 10 lines 43-59).

Thus, it would have been obvious to a person having ordinary skill in the art, at the time of the invention, to include a changing structure of a transmission frame directly to correspond with the new transfer rate as taught by Li in Behtash and Gilhousen's system with the motivation to reduce likelihood of transmission errors.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Behtash and Gilhousen in view of Love et al (U.S. Patent 5,745,520).

Regarding to claim 10, Behtash and Gilhousen disclose all the limitation with respect to claim 1, except for the power control command change in step size.

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In the analogous art, Love discloses a method for power control adjustment in a spread-spectrum communication system using threshold step-down size. See Fig. 3 col. 5 lines 25-39.

Thus, it would have been obvious to a person having ordinary skill in the art, at the time of the invention, to include the power control adjustment using step size as taught by Love in Behtash and Gilhousen's system with the motivation to target the value of the power control command.

Allowable Subject Matter

8. Claims 3, 4, 8 and 11 are allowed.

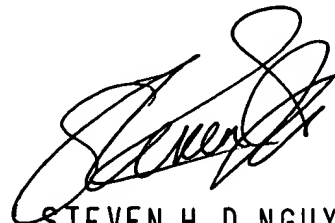
Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Duong whose telephone number is 703-605-5146. The examiner can normally be reached on M-Th (8:30 AM-5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 703-308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9600.

DD
October 15, 2003



STEVEN H. D NGUYEN
PRIMARY EXAMINER